

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference PLANM1PCT	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/FI2004/000433	International filing date (day/month/year) 07.07.2004	Priority date (day/month/year) 07.07.2003
International Patent Classification (IPC) or national classification and IPC A61C7/08		
Applicant LM-INSTRUMENTS OY et al.		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 7 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☐ sent to the applicant and to the International Bureau) a total of sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand 07.02.2005	Date of completion of this report 07.11.2005
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**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/FI2004/000433

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-3 as published

Claims, Numbers

1-27 as published

Drawings, Sheets

1-3 as published

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify)*:
 - ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application,
 - ☒ claims Nos. 4
because:
 - ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
 - ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 4 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
 - ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
 - ☐ no international search report has been established for the said claims Nos.
 - ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
 - ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
 - ☐ See separate sheet for further details

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	6-8, 11-18, 20-23, 25-27
	No: Claims	1-3, 5, 9-10, 19, 24
Inventive step (IS)	Yes: Claims	6-8, 11-18, 20-23, 25-27
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-27
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The below-mentioned lack of clarity notwithstanding, the subject-matter of independent claim 1 is not new in the sense of Article 33(2) PCT, and therefore the criteria of Article 33(1) PCT are not met.
 - 1.1. Document EP-A1-0 315 777 (D1) discloses an odontological device for guiding the occlusion of an individual, said device comprising a generally U-shaped arch (10) that has a lower surface on the lower jaw side and an upper surface on the upper jaw side (Fig. 1,2), the bottoms of the mentioned concaves forming an isthmus (20) separating the concaves (12, 14) and the walls of the concaves are formed by the outer walls (16) on the labial or buccal side, respectively, and of inner walls (18) arranged on the opposite sides of the concaves on the lingual side of the tongue, the isthmus between the concaves having recesses, a part of which are meant for individual teeth (column 3, lines 10-14), the recesses for the back teeth consisting of uniform compartments (12, 14), which start from the second premolar and continue towards the molars at least partially to the area where the second permanent molar will erupt (Fig. 1).
 - 1.2. The subject-matter of independent claim 1 is also known from US-A- 4 830 612 (D2), (Fig. 1, 2; column 2, line 63 - column 4, line 9, lines 31-46, 63-68).
2. The present application does not meet the criteria of Article 33(1) PCT either, because the subject-matter of independent claim 19 is not new in the sense of Article 33(2) PCT.
 - 2.1. The document D2 (column 4, lines 19-22) discloses a method step in which an appliance, having a proper size, is chosen for providing it to the patient. Hence, a series of devices of different sizes must implicitly be present so that an appropriate appliance can be chosen. The document D2 also discloses a device/appliance according to claim 1 (see 1.2.). Hence, several devices corresponding to the device as claimed in claim 1 are known from the document D2.
 - 2.2. Therefore, the subject-matter of claim 19 is also known from D2.

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3. The subject-matter of independent method claim 25 appears to be novel and to involve an inventive step.
- 3.1. The document D2 discloses the method in orthodontics (column 4, lines 19-22) comprising the step of selecting an appropriate device for the individual. The method as disclosed in D2 also implicitly comprises the step of defining at least one characteristic measurement, since else an appropriate device cannot be selected for the patient.
- 3.2. The subject-matter of method claim 25 therefore differs from the method known from D2 in that the length of the upper jaw side dental arch is measured from the individual's teeth between the left and right hand side front and middle teeth or two middle teeth, in which case, based on the measurement without taking separately into consideration the developmental phase of the teeth, a suitable occlusion guidance appliance device is chosen from an occlusion guidance appliance device series, which contains several essentially conformal and different-sized occlusion guidance appliance devices.
- 3.3. The measurement of the upper jaw side dental arch in order to decide on the dental appliance to be used is not disclosed in D2 nor does D2 or D1 suggest this method step for selecting an occlusion guidance appliance device.
- 3.4. The subject-matter of independent claim 25 is therefore novel, involves an inventive step, and is industrially applicable (Article 33(2)-(4) PCT).
4. Dependent claims 2-3, 5, 9-10 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty (Article 33(2) PCT), the reasons being as follows:
 - 4.1. The additional technical features of dependent claims 2-3, 5, 9-10 are also known from D1 (Fig. 1, 2; column 3, lines 3-10; column 3, lines 44 - column 4, line 5).
 - 4.2. The document D2 (Fig. 1) also discloses the additional technical features of dependent claims 2-3.

Re Item VII

Certain defects in the international application

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Re Item VIII

Certain observations on the international application

1. The independent claim 1, as well as the dependent claims 4 and 24 do not meet the requirements of Article 6 PCT in that the subject-matter for which protection is sought is not clearly defined.
 - 1.1. In the preamble of claim 1 reference is made to "the mentioned concaves". However, no "concaves" have been claimed in the part of the claim being anterior to this feature. Also, in the claim recesses have been claimed. However, nowhere in the description recesses have been disclosed. Hence, this feature is not referred to in the description. Therefore, claim 1 is not supported by the description.
Further, it is not clear where the difference lays between the recesses and the compartments. If both words describe the same feature, this would mean that the characterising part of claim 1 has no meaning.
 - 1.2. The subject-matter of claim 4 is not clear either. Apart from the remarks made for claim 1 regarding the recesses, the feature "the recesses contain uniform recesses" on itself has no meaning.
 - 1.3. The subject-matter of claim 24, having no additional features compared to the claims 19-23, is the same as the subject-matter of the claims 19 to 23. Hence, this claim is redundant.